Additives Plus
Reinventing Corrosion Inhibition

Product Bulletin

HOAT-10X

One-Part Extended Life Add Pak System

*****Also available in a heavy duty pre-charged version containing Nitrites*****

Quality Control

To ensure quality control and assurance, all blending is controlled under Additives Plus's standards. Each individual batch of Add Pak is rigorously tested for conformance with product and industry specifications prior to storage, packaging, or shipment. This laboratory analysis is thoroughly conducted by both Additives Plus and our blending facilities. A Certificate of Analysis for each lot is produced and is available to customers.

Industry Specifications

- ASTM D 3306
- ASTM D 4985
- Caterpillar EC-1
- Ford WSE-M97B44-B
- Ford WSS-M97B51-A1
- Ford WSS-M97B51-A1
- Chrysler MS-9769
- GM 6277M
- ASTM D 6210 **(when ordered as the heavy duty pre-charged formulation containing a minimum of 2400ppm Nitrites)**

Technical Support

It is always necessary to confirm that your products meet the required specifications. Additives Plus's laboratory and chemists are available to test any antifreeze products containing Additives Plus's Add Pak for a nominal fee. In this way, Additives Plus can help you to establish or confirm your quality control and assurance program. However, we will not warranty any Additives Plus product if the blending procedure is not properly followed and/or if the gly-

Technical Contact Information

Additives Plus
P.O. Box 1119, Evergreen, CO 80437 USA
Tel: 303-292-0595, Fax: 303-679-8988
info@additivesinc.com
www.additivesinc.com

Product Description and Applications

HOAT-10X is a one-part extended life Add Pak system which will make antifreeze concentrate that meets the ASTM D-3306 requirements. This Add Pak incorporates cutting-edge inhibitor technology to provide a reasonably priced long life antifreeze additive package. HOAT-10X is a hybrid organic acid technology (HOAT) additive/inhibitor package formulated with a proprietary stabilization system to improve the durability of its carboxylate salt base and extend its range of compatibility with both conventional inorganic salt and OAT-type antifreezes. Antifreeze made with HOAT-10X provides a service life up to 150,000 miles or 3000 hours. **HOAT-10X contains no silicates, borates, nitrates, amines, or phosphates.** This extended life corrosion inhibitor package possesses multiple complex carboxylic acid derivatives along with nitrite (upon request) to protect all six standard metal alloys (brass, copper, steel, solder, cast iron, and aluminum). These low foaming modified carboxylates in conjunction with Additives Plus's other proprietary ingredients provide broad-range metal protection and guard the cooling system against corrosion and cavitation-erosion for many years. In addition, it contains additives to minimize hot surface scaling while also preventing heat transfer surface fouling due to minor oil leakage. This additive system can be used effectively with either propylene or ethylene glycol. HOAT-10X can also be used with either virgin or high quality reclaimed glycol from distillation units, reverse- osmosis membranes, or most flocculation/filtration systems. Additives Plus recommends that all non-virgin glycol be anyalyzed to ensure glycol quality.

Product Specifications

As concentrated Add Pak:	
Visual	Hazy, light amber liquid
Specific Gravity	1.140-1.189
pH	8.7-9.7
As concentrated Antifreeze (made with EG and HOAT-10X):	
Specific Gravity	1.110-1.125
pH	8.0-9.5
Reserve Alkalinity	3 ml min.
Freeze Point	-34ºF max. (@ 50/50)

Blending Instructions

To make antifreeze concentrate (97.8% glycol, 2.2% additives), first charge the desired quantity of glycol to the blending tank. The glycol should be at a temperature of 45ºF or higher and should have an initial pH of 7.0-9.5. Maintain this temperature of 45ºF or higher throughout the blending procedure. Based on the quantity of glycol being treated, add 2.2% by volume of HOAT-10X while agitating or circulating glycol (two 55 gallon drums per 5,000 of glycol). Continue to agitate for 15-30 minutes after entire Add Pak content has been added. Store the concentrated Add Pak at a temperature above 60ºF.